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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/413,984	10/07/1999	TOSHIYA KITAMURA	990630/HG	2673

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EXAMINER

DOVE, TRACY MAE

ART UNIT	PAPER NUMBER
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1745

DATE MAILED: 02/21/2003

19

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
09/413,984

Applicant(s)
Kitamura

Examiner
Tracy Dove

Art Unit
1745



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Dec 12, 2002
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 2, 4, 6-8, 10, 12, and 14-18 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 4, 6-8, 10, 12, and 14-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 6) ☐ Other: _____

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DETAILED ACTION

This Office Action is in response to the communication filed on 12/12/02. Applicant's arguments have been considered, but are moot in view of the new grounds of rejection. Claims 1, 2, 4, 6-8, 10, 12 and 14-18 are pending and are rejected in view of the prior art. This Action is made Non-Final.

Claim Objections

The objection to claims 5 and 11 has been withdrawn, the claims were canceled.

Claim Rejections - 35 USC § 112

The 35 U.S.C. 112, second paragraph, rejection has been withdrawn. See claims analysis section below.

Claims Analysis

Note the phrase "conventional alloyed zinc powder" in the claims is limited to the definition provided in the instant specification. Page 2, lines 3-6 states that a "conventional alloyed zinc powder" is a zinc alloy including at least one component selected from the group consisting of Al, Bi, In, Ga, Sn and Pb.

Claims 1, 2, 6-8 and 12 recite "a powder of Bi". The specification teaches the negative active material is a mixture of a trivalent metal and an alloyed zinc powder (see page 3, lines 1-4). The specification further states the trivalent metal is an oxide of the trivalent metal (page 3, lines 16 and 22; page 4, lines 18 and 23). Thus, the claims will be interpreted as if they recited "a powder of trivalent Bi" (encompasses bismuth oxide).

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Double Patenting

TD/
The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1, 6, 7, 12 and 15-18 are rejected under the judicially created doctrine of double patenting over claims 1, 6 and 9 of U. S. Patent No. 6,461,768 since the claims, if allowed, would improperly extend the "right to exclude" already granted in the patent.

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The subject matter claimed in the instant application is fully disclosed in the patent and is covered by the patent since the patent and the application are claiming common subject matter, as follows:

Kitamura et al. 6,461,768 claims a negative electrode material for use in an alkaline cell. Note claim 6 recites a method of preparing a negative electrode material for use in an alkaline cell comprising dry mixing a zinc powder with a metallic bismuth powder in advance and then immersing the resultant mixture in an aqueous alkaline solution to deposit bismuth on surfaces of the zinc powder particles. Note claim 9 recites the zinc powder of claim 6 is a zinc alloy powder.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 6, 7, 12 and 15-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Shinoda et al., US 5,376,480.

Shinoda teaches an alkaline battery having a negative electrode produced without mercury. The negative electrode of Shinoda enables uniform dispersion of zinc or zinc alloy powder and an effective metal which can be one or more of an oxide or hydroxide of indium, lead, gallium or bismuth. The zinc or zinc alloy powder and the effective metal are dry mixed in

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advance of mixing with an alkaline electrolyte. See abstract. When the effective metal and the zinc alloy powder is put in the alkaline electrolyte in the mixed (dry) condition, the stirring period required for obtaining uniform mixing and distribution can be significantly shortened (col. 3, lines 8-12). While the effective metal used in the Examples of Shinoda is indium, Shinoda teaches the various metallic materials (such as bismuth) to form the effective metal are obvious to those skilled in the art (col. 4, lines 53-61). Shinoda teaches zinc alloys such as zinc alloyed with lead, aluminum, indium, gallium and/or bismuth (conventional alloyed zinc) (col. 1, lines 26-32).

Thus the claims are anticipated.

Note claims 15-17 are further limiting the “conventional” alloyed zinc powder. Thus, these claims are considered admitted prior art by Applicant.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2, 4, 8, 10, 14 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shinoda et al., US 5,376,480.

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Shinoda teaches an alkaline battery having a negative electrode produced without mercury. The negative electrode of Shinoda enables uniform dispersion of zinc or zinc alloy powder and an effective metal which can be one or more of an oxide or hydroxide of indium, lead, gallium or bismuth. The zinc or zinc alloy powder and the effective metal are dry mixed in advance of mixing with an alkaline electrolyte. See abstract. When the effective metal and the zinc alloy powder is put in the alkaline electrolyte in the mixed (dry) condition, the stirring period required for obtaining uniform mixing and distribution can be significantly shortened (col. 3, lines 8-12). While the effective metal used in the Examples of Shinoda is indium, Shinoda teaches the various metallic materials (such as bismuth) to form the effective metal are obvious to those skilled in the art (col. 4, lines 53-61). Shinoda teaches zinc alloys such as zinc alloyed with lead, aluminum, indium, gallium and/or bismuth (conventional alloyed zinc) (col. 1, lines 26-32).

Shinoda does not explicitly teach the amount of or particle size of bismuth dry mixed with the zinc alloy.

However, the invention as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made because Shinoda teaches that the indium used in Example 1 has an average size of 5 μm and was added in an amount of 0.02 wt % indium based on the weight of the zinc alloy powder. One of skill would find it obvious to use a similar particle size and weight percent of bismuth in view of the teachings of Shinoda regarding the

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addition of indium. Shinoda teaches and suggests that bismuth may be used as the effective metal (see col. 4, lines 52-61).

Response to Amendment

The declaration under 37 CFR 1.132 filed 12/12/02 does not provide sufficient evidence of unexpected results because the zinc powder compositions used in the declaration are not the same as the zinc powder compositions used by Miyasaka, JP 5-151968. However, the rejection in view of Miyasaka has been withdrawn due to newly found prior art which clearly anticipates and/or renders obvious the claimed invention.

Response to Arguments

Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tracy Dove whose telephone number is (703) 308-8821. The Examiner may normally be reached Monday-Thursday (9:00 AM-7:30 PM). My supervisor is Pat Ryan, who can be reached at (703) 308-2383. The Art Unit receptionist can be reached at (703) 308-0661 and the official fax numbers are 703-872-9310 (after non-final) and 703-872-9311 (after final).


Patrick Ryan
Supervisory Patent Examiner
Technology Center 1700

February 13, 2003